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August 3, 1970

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Attention: Dave D.

Gentlemen:

In accordance with the requirements on [redacted]
Task Order No. 33, we are enclosing three (3) copies of the Twenty-Fifth Monthly Letter Report—for the month of July, 1970—covering the IDT Display Program.

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As a part of this report there is, as required, a Financial Status Report covering this same period.

Very truly yours,

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Engineering Department

NLT:bc
Enclosures (3)
CC—Contracting Officer (1 Encl.)

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and declassification.

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No. of pages —

Copy 4 of 5 Copies

STATUS DATA

ORD # 5 313-70

IDT DISPLAY PROGRAM (U)

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Task Order No. 33

Twenty-Fifth Monthly Letter Report

Month of July 1970

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Task No. 33 - 24 June 1968 to 15 Aug. 1970

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Monthly Contract Status ReportFinancial StatusFor Period 27 June 1970 to 1 Aug. 1970Target CostTarget FeeTarget Total

Amount of Contract:

Amount of Obligations and/
or Expenditures This Period:Amount of Obligations and/
or Expenditures to Date:

Estimated Funds to Complete:

Percentage of Funds Expended
to Date:

88%

Percentage of Work Completed
to Date:

95%

1. Is work on schedule?

No

2. Can work be completed in authorized time?

No

3. Can contract be completed with authorized funds?

Yes

PROJECT STATUS

The remaining logic, including the exposure controller and video amplifier, have been debugged.

All subroutines have been punched and assembled and are being debugged.

As reported in our letter of 28 July 1970, delays in the logic debugging have caused a three-week delay in the projected shipping date. The remaining funds appear to be sufficient to complete the project.

WORK PLANNED DURING NEXT REPORTING PERIOD

1. Complete software debugging.
2. Start test program.

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ORD #534-70

TECHNICAL REPORT

IDT DISPLAY PROGRAM (U)

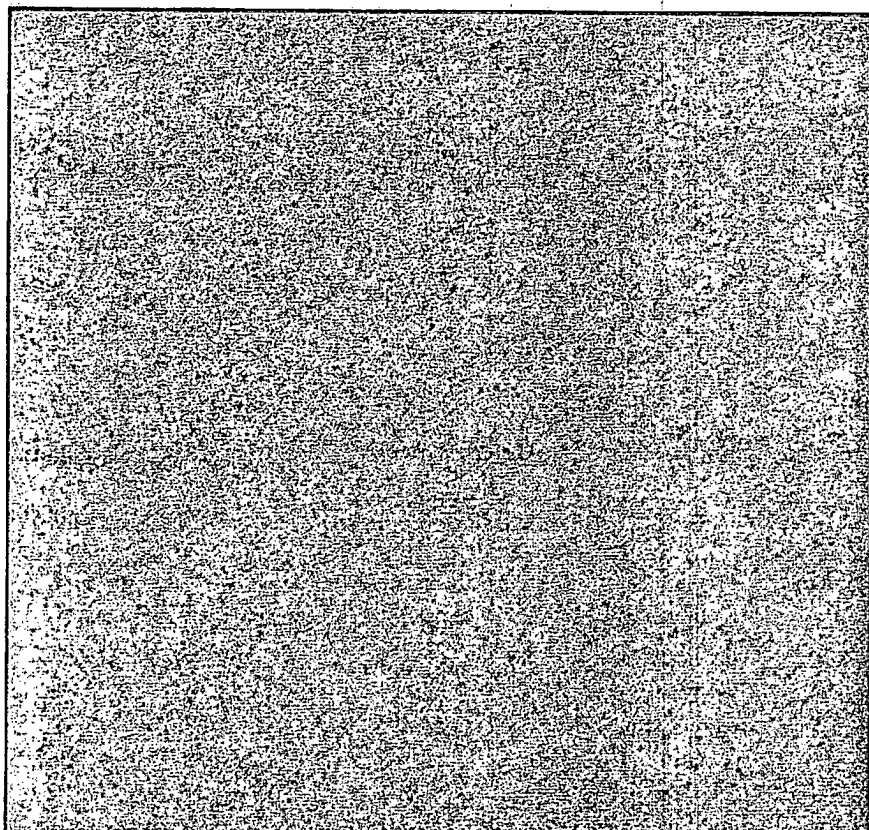


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Task Order No. 33

Twenty-Fifth Monthly Letter Report

Month of July 1970



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TECHNICAL REPORT

During the past month logic debugging continued and software debugging of the final routines commenced.

The logic has been fully debugged, and should require changes only to accommodate software problems. The video amplifier used to drive the real time video has been debugged and installed.

An instruction has been added to open the shutter on the camera. The function was previously performed by the OTA '1422 instructions. Spurious decoding caused the shutter to open at random times, thus dictating a separate shutter instruction. The transfer of the exposure setting, which is the prime function of the OTA '1422 does not suffer random decoding problems because positive DRLIN and RRLIN responses are required. The new instruction required a new address, since the instruction set associated with address 22 is full. The amended instruction set is shown in Table I.

Several routines, both operational and test have been added to the program complement. The additions to the operational routines include disc write and disc read subroutines used in conjunction with the Get routine.

The test routines are being used to test the tape transport and to generate test patterns on the display. The amended program complement is shown in Table II.

TABLE I

IDT/DISPLAY INSTRUCTION SETHigh Speed IDTAddress 23_8

1. Transfer Data
2. Test for Scanner on Line
3. Clear DRLIN
4. Test for End of Line

Function CodesINA 00_8 SKS 01_8 OCP 02_8 SKS 03_8 Computer DisplayAddress 22_8

1. Clear Disc
2. Clear Data Switches
3. Set Counter
4. Data Transfer Computer - Buffer
5. Transfer X Address
6. Transfer Y Address
7. Write Disc
8. Test for End of Operation
9. Read Disc
10. Data Transfer Buffer - Computer
11. Read X Cursor
12. Read Y Cursor
13. Set Exposure
14. Test for End of Expose
15. Quick Expose
16. Weighted Expose

Function CodesOCP 00_8 OCP 01_8 OCP 02_8 OTA 03_8 OTA 04_8 OTA 05_8 OCP 06_8 SKS 07_8 OCP 10_8 INA 11_8 INA 12_8 INA 13_8 OTA 14_8 SKS 15_8 OCP 16_8 OCP 17_8 Address 21_8

17. Open Shutter

OCP 00_{88}

TABLE II

IDT/DISPLAY PROGRAM COMPLEMENT

Name	Description	Coded	Partially Debugged	Fully Debugged	To be Updated
<u>Operational Routines</u>					
MAIN	Main program	X	X		
LOAD	Load disc from tape	X	X		X
DUMP	Dump disc to tape	X			X
GET	Disc to TTY	X	X		
EXPO	Quick or weighted exposure	X	X		
SCAN	IDT to tape			X	
TABL	Read exposure table from paper tape	X	X		
TAPW	Tape write subroutine			X	
TAPR	Tape read subroutine	X	X		
READ	Read TTY subroutine			X	
TRAN	Transfer			X	
PRNT	Print on TTY subroutine			X	
PACK	Pack 8 bit words			X	
DTOO	Decimal to Octal			X	
BTOD	Binary to ASCII			X	
LRED	Disc line read	X			
LWRT	Disc line write	X			

(Continued)

IDT/DISPLAY PROGRAM COMPLEMENT (Continued)

Name	Description	Coded	Partially Debugged	Fully Debugged	To be Updated
<u>Test Routines</u>					
BAR GEN	Generates step wedge on magnetic tape			X	
TAPR*	Tape read, short form			X	
TAPW*	Tape write, short form			X	
Tape Dump	Dumps tape records to TTY		X		
Trans- port Test	Program to test tape transport			X	
Dummy Tape Read	Generates gray wedge in buffer area when TAPR subr. is called			X	
Dummy Tape Write	Bypasses TAPW routine when doing disc dump		X		